2. Bryan

Program Name: Bryan.java **Input File: bryan.dat**

Bryan is having fun picking up summer jobs to earn some spending money. However, he isn't particularly attentive to how much he is earning or how much he's spending. Some weeks, Bryan finds that he's spent more money than he's earned, and his friends and family will soon refuse to stop covering for him.

In order to better keep track of his expenses, Bryan keeps a journal where he writes down how much he makes from each of his jobs and how much he spends each time he goes out. At the end of each week, Bryan totals how much money he's earned and how much money he's spent. Can you help him out by writing a program to do the summations for him?

Input:
The first line is a positive integer W, the number of weeks in this test set. Each week starts with a single positive integer N, the number of transactions in that week. The following N lines each have a string, which describes the transaction, and an integer after it, which is the amount Bryan earned or spent. Positive integers mean Bryan earned that much for completing a job, and negative integers mean that Bryan spent that much.

All integers in the input are non-zero and have absolute value at most 30. The descriptions are strings of no more than 20 lowercase letters.

Output:
For each week, print the case number and:

- If Bryan earned more money than he spent, print "`Wow, Bryan saved $XX`"
- If Bryan spent more than he earned, print "`Oh no! Bryan had to borrow $XX`"
- If Bryan spent exactly as much as he earned, print "`Phew, broke even!`"

Replace XX with the appropriate dollar amount. Do not print any leading zeros, and do not print any cents. Format the answer as in the samples.

Sample Input:

```
3
4
babysitting 10
lemonade 4
game -7
date -7
3
movies -10
mowing 5
carwashing 8
2
tutoring 4
clothes -7
```

Sample Output:

```
Case #1: Phew, broke even!
Case #2: Wow, Bryan saved $3
Case #3: Oh no! Bryan had to borrow $3
```